

direction of closing the valve hole. The urging force of the spring 113 is adjusted by actuator 115 provided for varying the degree of superheat. (See, for example, the Abstract.)

With this configuration, valve member 112 opens when the differential pressure between pressure in a primary path 107 (the high pressure) and pressure in a secondary path 108 (the low pressure) becomes larger than a predetermined value determined by the urging force of the spring 113, and, after opening, the valve lift of the valve member 112 is controlled by displacement of diaphragm 106 transmitted thereto via valve rod 111.

Therefore, because valve member 112 opens when the differential pressure increases, even if actuator 115 increases the urging force added to the force of spring 113, valve member 112 opens when the differential pressure becomes larger than a value determined by the increased urging force. Thus, valve member 112 is not is not a stop valve as described in claim 1. Furthermore, in the expansion valve of Nose, spring 113 is interposed between the valve member 112 and actuator 115, so it is not guaranteed that actuator 115 causes valve member 112 necessarily to close the valve hole under any condition, and, even if closing of the valve hole is caused by actuator 115, it only occurs when actuator 115 is energized.

Applicant also notes that Nose does not disclose a construction for electromagnetically coupling or uncoupling a common valve element and a driving force-transmitting member. Certainly, Nose does not disclose “a solenoid operative to electromagnetically couple the common valve element and the driving force-transmitting member with each other” as recited in claim 1.

Specifically, although the expansion valve of Nose is provided with valve rod 111 for transmitting the displacement of diaphragm 106 to valve member 112, it is not configured for coupling and uncoupling between valve member 112 corresponding to common valve element

and valve rod 111 corresponding to the driving force-transmitting member. Actuator 115 (corresponding to the “solenoid” recited in the claim) adjusts an urging force added to that of spring 113. However, actuator 115 does not provide valve rod 111 with a function of transmitting the displacement of diaphragm 106 to valve member 112 or blocking its transmission.

Additionally, note that, in the expansion valve of Nose, valve rod 111 (perhaps relied upon as a “driving force-transmitting member”) is not inserted into the valve hole of the expansion valve. Also, in the expansion valve of Nose, valve member 112 (corresponding to the “common valve element” recited in the claim) is not configured to be guided by valve rod 111.

Finally, in the expansion valve of Nose, spring 113 (perhaps relied upon to teach the “spring” recited in the claim) urges valve member 112 in the valve-closing direction with respect to actuator 115. However, spring 113 does not urge valve member 112 in the valve-closing direction with respect to valve rod 111.

In view of the distinctions discussed above between the expansion valve of Nose and the solenoid valve-equipped expansion valve describe in claim 1, applicant now solicits the withdrawal of the anticipation rejection of claim 1. Applicant further submits that claim 1 is allowable over the disclosure of Nose. Claims 4-7, withdrawn from consideration as describing a non-elected species, each depend from claim 1. Accordingly, applicant requests consideration and the subsequent allowance of claims 4-7, also.

Applicant now submits that the entire application is in condition for allowance, and a Notice of Allowability is hereby requested. If for any reason it is believed that this application is not now in condition for allowance, the Examiner is welcome to contact applicant's undersigned attorney at the telephone number indicated below to discuss resolution of the remaining issues.

If this paper is not timely filed, applicant petitions for an extension of time. The fee for the extension, and any other fees that may be due, may be debited from Deposit Account No. 50-2866.

Respectfully submitted,
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Enclosure: Petition for extension of time

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